



1. Application details

1.1. Permit application details

Permit application No.: 2372/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Vasse Felix Pty Ltd

1.3. Property details

Property: LOT 30 ON PLAN 46641 (Lot No. 30 HARMANS WILYABRUP 6280)

Local Government Area: Shire Of Busselton

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
14		Mechanical Removal	Horticulture

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
<p>Beard:</p> <p>- Unit 3 (Boranup): Medium forest; jarrah - marri; (Hopkins et al., 2001; Shepherd, 2006).</p> <p>Mattiske:</p> <p>- Cowaramup (C2): Open forest of Eucalyptus marginata subsp. marginata-Corymbia calophylla-Banksia grandis on lateritic uplands in perhumid and humid zones;</p> <p>- Wilyabrup (W2): Open forest of Corymbia calophylla-Allocasuarina decussata-Agonis flexuosa on deeply incised valleys in perhumid and humid zones; (Havel & Mattiske Consulting, 1998).</p> <p>As above</p>	<p>The proposal involves clearing approximately 14 hectares of native vegetation for the purpose of planting wine grapes (viticulture). The vegetation under application varies from being in a degraded condition in parts, mainly within the eastern sections of vegetation under application, to be in a very good (Keighery 1994) condition in the south west corner of the application area where there is very little weed invasion (DEC, 2009).</p> <p>Approximately 40% of the eastern side of the applied area is parkland cleared and the area appears to have been historically logged and grazed by stock over many years.</p> <p>As above</p>	<p>Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)</p> <p>Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)</p>	<p>Description of the clearing application area is based on site inspections (DEC 2005 and DEC 2009).</p> <p>As above</p>

3. Assessment of application against clearing principles

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

Comments

Proposal is at variance to this Principle

The proposal is for the clearing of approximately 14 hectares of native vegetation that is considered to vary from being in a degraded (Keighery, 1994) condition (DEC 2005) to a very good (Keighery 1994) condition (DEC 2005, DEC 2009a). The south west corner of the application area is particularly significant, as the local area (10 kilometre radius) is approximately 30% vegetated, with the majority concentrated along the coastline. Most of

this vegetation is in private ownership, however approximately 40% is protected within the DEC-managed Leeuwin Naturaliste and Yelverton National Parks.

In local context the vegetation under application is considered to be a significant remnant. The surrounding landscape has been significantly altered by previous land clearing, and as a result, has become fragmented. There are a number of Priority flora recorded within the local area (10km radius) including one Priority 1, six Priority 2, eighteen Priority 3 and six Priority 4 species. The majority of these species have been recorded within a large intact remnant on the coast and a large intact remnant to the north east.

The following Priority species may occur within the area under application due to the similar soil types (DEC 2008):

Hemigenia rigida (P1) - may be present but generally associated with areas of granite
Thysanotus isantherus (P3) - may be present but generally associated with areas of granite
Caladenia plicata (P4)

The application area has also been identified as potential foraging habitat for the Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii naso*) (DEC, 2009b).

While the vegetation under application has been historically impacted by stock, the property is now managed as a vineyard with no stock. The eastern section is in a degraded (Keighery 1994) condition consisting of jarrah and marri over pasture. The south western corner of vegetation under application remains in a very good (Keighery 1994) condition (DEC 2005, DEC 2009a). The area was fenced off from stock in the past and contains little weeds and some evidence of historical logging. There are habitat trees within the remnant which may serve as a stepping stone, linking other remnants from east to west.

The degraded eastern section of vegetation under application is unlikely to hold significance in terms of aiding biodiversity within the local area, however the south west corner of the application area is in a significantly better condition and may be of increased importance to the local area, considering the highly cleared surrounding landscape.

Therefore it is considered that the proposed clearing is at variance to this principle.

Methodology DEC (2005)
DEC (2008)
DEC (2009a)
DEC (2009b)
Florabase (2008)
Keighery (1994)
GIS Databases:
- Busselton 50cm ORTHOMOSAIC - DLI04
- CALM Managed Lands and Waters - CALM 1/6/04
- SAC Bio Dataset - 26/6/08

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

Comments **Proposal may be at variance to this Principle**

There are six species of threatened and priority listed fauna have been recorded within close proximity to the area under application (10 kilometre radius). The local area is approximately 30% vegetated, with the majority concentrated along the coastline (3 kilometres west of the area under application).

The Hooded Plover (*Charadrius rubricollis*), is unlikely to utilise the area under application. Three other species are associated with watercourses being, the Quenda (*Isodon obesulus fusciventer*), the Water Rat (*Hydromys chrysogaster*) and the Dunsborough Burrowing Crayfish (*Engaewa reducta*). Adequate buffers will be retained on the watercourse within the property and these species are unlikely to be affected by the proposed clearing if they inhabit this area.

The other two species, the Chuditch (*Dasyurus geoffroii*) and the Carpet Python (*Morelia spilota imbricate*) were recorded over 6 km away.

Additionally, there is a great deal of fallen timber and some old stags and habitat trees which would present a range of habitat for a variety of vertebrate and invertebrate fauna (DEC 2009a). The vegetation has also been identified as potential foraging habitat for the Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii naso*) (DEC, 2009b).

The surrounding landscape has been altered by previous land clearing, and as a result, has become fragmented. The area under application is one of only a few isolated remnants (~5 hectares in size) within a 10 kilometre radius. The proposed clearing may interrupt fauna movement between other isolated remnants and may be at variance to this Principle.

Methodology DEC (2009a)
DEC (2009b)
Keighery (1994)
GIS Databases:
- Busselton 50cm ORTHOMOSAIC - DLI04
- CALM Managed Lands and Waters - CALM 1/6/04;
- Threatened Fauna, SAC Bio Dataset - 26/6/08

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

Comments **Proposal is not likely to be at variance to this Principle**
Several populations of *Caladenia excelsa* (rare flora) have been recorded within the local area (10 km radius).

Caladenia excelsa is a tuberous, perennial herb that flowers in September to October and occurs on white, grey or brown sand / sandy loam (DEC Flora Base 2008).

The area under application is described as a broad shallow valley and low ridges with moderate amounts of laterite and lateritic (ironstone gravel); chief soils are acid grey earths sometimes containing ironstone gravels (Northcote et al. 1960-68).

The soils of the area under application are therefore not suitable for this species and therefore it is not likely to occur within the area under application.

The proposed clearing is not likely to be at variance to this Principle.

Methodology DEC Flora Base (2008)
Northcote et al. (1968)

GIS Databases:
- Busselton 50cm ORTHOMOSAIC - DLI04
- DEFL, SAC Bio Dataset - 22/8/07
- Soils, Statewide

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

Comments **Proposal is not likely to be at variance to this Principle**
There are no known Threatened Ecological Communities (TECs) present in the application area. Within the local area (10km radius) there are several records of the community type "Low shrublands (Gracetown)", which occurs on acidic grey-brown sands.

The area under application is described as a broad shallow valley and low ridges with moderate amounts of laterite and lateritic (ironstone gravel); chief soils are acid grey earths sometimes containing ironstone gravels (Northcote et al. 1960-68).

The vegetation considered to be in very good (Keighery, 1994) condition is described as Marri-Jarra Woodland over *Acacia myrtifolia*, *Hovea elliptica* and *Logania vaginata* over a low shrub understorey of *Hibbertia hypericoides*, *Acacia pulchella*, *Opercularia vaginata* and *Tetraria capillaris* on lateric soils with exposed laterite (DEC, 2009a). Shrublands are known to consist of genera such as *Jacksonia*, *Banksia*, *Hakea*, *Acacia* and *Hibbertia* (Government of WA, 2000) but no overstorey of Marri and Jarrah. The community type within the vegetation considered to be in very good (Keighery, 1994) condition is not considered to be consistent with the above TEC.

Approximately 40% of the vegetation within the application area is parkland cleared and in a degraded (Keighery, 1994) condition. This vegetation does not support the characteristics of the TEC.

Given the above, the proposal is not likely to be at variance to this Principle.

Methodology DEC (2005)
Keighery (1994)

GIS Databases:
- TEC Database, SAC Bio Dataset - 22/8/07
- Threatened Ecological Communities - CALM

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

Comments	Proposal is at variance to this Principle			
	Pre-European extent (ha)	Current extent (ha)	% remaining	% in DEC managed Lands
IBRA Region:				
- Warren	835,925	675,836	80.85	83.37
- Beard 3 within IBRA Region	252,196	204,295	81.01*	69.6
Local Government Authority:				
- Shire of Busselton	146,450	61,734	42.15	65.89
Mattiske:				
- Cowaramup (C2)	128,733	44,578	34.6	1.1
- Wilyabrup (W2)	3,518	741	31.5	1.8

* (Shepherd, 2007)
(Mattiske 1998)

While all the vegetation types found to occur within the application area are above the recommended 30% threshold for retained vegetation (EPA, 2000), the vegetation is still important as a remnant in a highly cleared landscape. The vegetation under application in very good (Keighery, 1994) condition (approximately 5 hectares) is one of a few isolated remnants within the local area (10 kilometre radius) in this condition (DEC 2005, DEC 2009a), which may be utilized as a stepping stone by flora and fauna species.

Methodology	DEC (2009a)
	DEC (2005)
	Hopkins et al. (2001)
	Mattiske Consulting (1998)
	Shepherd (2006)
	Shepherd et al (2001)
	GIS databases:
	- Busselton 50cm Orthomosaic - DLI04
	- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
	- Local Government Authorities - DLI 8/07/04
	- Mattiske Vegetation - CALM 1/03/1998
	- Pre European Vegetation - DA 01/01

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Comments **Proposal is not at variance to this Principle**
Several minor, non-perennial watercourses located within close proximity to the area under application. However, the vegetation under application is not directly associated with these watercourses as adequate buffers have been retained (DoE 2005).

The proposal is therefore not at variance to this Principle.

Methodology	DoE (2005)
	GIS Databases:
	- Busselton 50cm ORTHOMOSAIC - DLI04
	- Hydrography, Linear - DoE 1/2/04

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Comments **Proposal is not at variance to this Principle**
The area under application is described as broad shallow valleys and low ridges with moderate amounts of laterite and lateritic (ironstone gravel); chief soils are acid grey earths sometimes containing ironstone gravels (Northcote et al. 1960-68). There is a low to no risk of wind erosion as a result of the proposed clearing.

There are no watercourses or wetlands nearby that are likely to contribute waterlogging, via shallow ground water expression, as a result of the proposed clearing.

The area under application is within the Wilyabrup Brook (Busselton Coast) catchment which is ~20% vegetated. The rainfall is 1000 to 1050 mm/ annum. The risk of salinity is therefore low.

The groundwater salinity is 1000 to 3000 mg/L and the hydrogeology consists of rocks of low permeability with local aquifers in fractured and weathered rocks.

The proposed clearing is not likely to cause appreciable land degradation and therefore is not at variance to this Principle.

Methodology Northcote et al. (1960-68);

GIS Databases:

- Busselton 50cm Orthomosaic - DLI04
- Groundwater Salinity Statewide DoW 13/07/06
- Hydrography, linear - DOW 13/7/06
- Hydrographic catchments, catchments - DoW 01/06/07
- Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05
- Soils, Statewide DA 11/99

(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

Comments **Proposal may be at variance to this Principle**

The coastal Leeuwin-Naturaliste National Park is located approximately 4 kilometres west of the area under application, the Yelverton National Park is located 4.9km north east and the Walburra Nature Reserve is located 6km east of the application area.

The proposed clearing may impact on fauna habitat connectivity due to the fragmented nature of the surrounding landscape.

The vegetation under application in very good (Keighery, 1994) condition (approximately 5 hectares) is one of a few isolated remnants within the local area (10 kilometre radius) in this condition (DEC 2005, DEC 2009a) and therefore the proposed clearing may impact on the environmental values attributed to areas managed for conservation and therefore may be at variance to this Principle.

Methodology DEC (2009a)
DEC (2005)

GIS Databases:

- CALM Managed Lands and Waters - CALM 1/07/05
- Busselton 50cm Orthomosaic - DLI04
- Register of National Estate - EA 28/01/03

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

Comments **Proposal is not at variance to this Principle**

The area under application is described as broad shallow valleys and low ridges with moderate amounts of laterite and lateritic (Ironstone gravel); chief soils are acid grey earths sometimes containing ironstone gravels (Northcote et al. 1960-68).

The area under application is within the Wilyabrup Brook (Busselton Coast) catchment which is ~20% vegetated. The rainfall is 1000 to 1050 mm/ annum. The risk of salinity is therefore low.

The groundwater salinity is 1000 to 3000 mg/L and the hydrogeology consists of rocks of low permeability with local aquifers in fractured and weathered rocks.

The slope of the land under application is 105 to 115 metres AHD (Australian Height Datum) over 500 metres, with several minor, non-perennial watercourses located within close proximity to the area under application.

There are adequate buffers on nearby watercourse and, therefore, the proposed clearing is not likely to cause deterioration in the quality of surface or underground water and is not at variance to this Principle.

Methodology Northcote et al. (1960-68);

GIS Databases:

- Busselton 50cm Orthomosaic - DLI04
- Groundwater Salinity Statewide DoW 13/07/06
- Hydrography, linear - DOW 13/7/06
- Hydrographic catchments, catchments - DoW 01/06/07
- Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05
- Soils, Statewide DA 11/99
- Topographic Contours, Statewide - DOLA 12/9/02

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Comments Proposal is not at variance to this Principle

The area under application is described as broad shallow valleys and low ridges with moderate amounts of laterite and lateritic (ironstone gravel); chief soils are acid grey earths sometimes containing ironstone gravels (Northcote et al. 1960-68).

The slope of the land under application is 105 to 115 metres AHD (Australian Height Datum) over 500 metres, with several minor, non-perennial watercourses located within close proximity to the area under application.

There are no watercourse or wetlands nearby that are likely to contribute waterlogging, via shallow ground water expression, as a result of the proposed clearing.

The proposed clearing of 14 hectares is unlikely to cause flooding.

Methodology Northcote et al. (1960-68);

GIS Databases:

- Busselton 50cm Orthomosaic - DLI04
- Groundwater Salinity Statewide DoW 13/07/06
- Hydrography linear - DOW 13/7/06
- Soils, Statewide DA 11/99

Planning Instrument, Native Title, Previous EPA decision or other matter.

Comments

The area under application has previously been approved for clearing under CPS354/1, which expired 2 July 2007. Clearing of the total area originally approved has not been cleared. The proponent has applied for the same area to that which was originally approved. The property under the previous application (Lot 2) has since been subdivided (Lot 30).

A water licence and Shire approval have been obtained, however Shire approval is only for two areas which excludes the south west corner of the application area (Trim Ref: DOC 74917).

Developmental approval is yet to be obtained from the Shire of Busselton.

Methodology

GIS Databases:

- Native Title Claims - DLI 7/1 1/05

4. Assessor's comments

Comment

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the Environmental Protection Act 1986, and the proposed clearing is at variance to Principles (a) and (e), may be at variance to Principles (b) and (h), is not likely to be at variance to Principles (c) and (d) and is not at variance to the remaining Principles.

5. References

- DEC (2009a) Site Inspection Report for Clearing Permit Application CPS 2372/1, Lot 30 Harmans Road South, Wilyabrup. Site inspection undertaken 25/2/09. Department of Environment and Conservation, Western Australia (TRIM Ref. DOC77409).
- DEC (2009b) Department of Environment and Conservation, Advice from Species and Communities Branch (DEC TRIM Ref: DOC95992)
- Department of Environment (2005) Water Quality Protection Note: Vegetation Buffers to Sensitive Water
- Department of Environment and Conservation (2005) Site Visit Report. Native Vegetation Conservation CPS 2372/1. DEC TRIM Ref: SWO23755.
- Department of Environment and Conservation (2008) Regional Advice CPS 2372/1. DEC TRIM Ref: DOC56645.
- Department of Environment and Conservation (DEC), Florabase (2008) <http://florabase.dec.wa.gov.au>. (Retrieved 29 January 2008).
- EPA (2000) Environmental protection of native vegetation in Western Australia. Clearing of native vegetation, with particular reference to the agricultural area. Position Statement No. 2. December 2000. Environmental Protection Authority,

Western Australia.

- Government of Western Australia (2000) Bush Forever Volumes 1 and 2. Western Australian Planning Commission, Perth WA.
- Havel, J. and Mattiske Consulting Pty Ltd, (2002). Review of management options for poorly represented vegetation complexes. Conservation Commission.
- Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALMScience after J. S. Beard, late 1960's to early 1980's Vegetation Survey of Western Australia, UWA Press.
- Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALMScience after J. S. Beard, late 1960's to early 1980's Vegetation Survey of Western Australia, UWA Press.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Mattiske, E.M. and Havel, J.J. (1998). Vegetation mapping in the South West of Western Australia. Department of Conservation and Land Management, Perth.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.
- Sac Bio Datasets (22/8/07). Department of Environment and Conservation, Sac Bio Datasets, Kensington, Western Australia.
- Shepherd, D.P. (2006). Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.
- Shepherd, D.P. (2007). Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.

6. Glossary

Term	Meaning
BCS	Biodiversity Coordination Section of DEC
CALM	Department of Conservation and Land Management (now BCS)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment
DoIR	Department of Industry and Resources
DRF	Declared Rare Flora
EPP	Environmental Protection Policy
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
TEC	Threatened Ecological Community
WRC	Water and Rivers Commission (now DEC)

